

REMARKS

Claims 1-9 and 12-22 will be pending upon entry of the present amendment. Claims 1 and 19 are being amended. Claims 20-22 are new. No new matter is being presented. The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

Rejection Under 35 U.S.C. § 103

Claims 1-3, 5, 6, 12-14, 16, 17 and 19 are rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,226,443 to Morioka et al. (hereinafter “Morioka”) in view of KR Application No. 10-1996-0072736 to Jeong-Gyu Kim (hereinafter “Jeong/Kim”)¹.

Claims 7-9 and 18 are rejected under 35 U.S.C. § 103 as being unpatentable over Morioka in view of Jeong/Kim and further in view of Applicant’s Admitted Prior Art (hereinafter “AAPA”), and claims 4 and 15 are rejected under 35 U.S.C. § 103 as being unpatentable over Morioka in view of Jeong/Kim and further in view of U.S. Patent 6,876,814 to Le Dantec. Applicant respectfully traverses the rejections for at least each of the following reasons.

One embodiment of the present application is directed to a method of decoding shuffled audio data encoded in multiple Digital Interface Frame (DIF) blocks of a Digital Video (DV) frame and outputting the decoded audio data in a Pulse Code Modulation (PCM) frame. It is important to note that the method de-shuffles the audio data one DIF block at a time. By decoding the audio data, the multiple DIF blocks that make up a single DV frame do not have to be concurrently buffered in order to decode the DV frame.

¹ In the present Office Action, KR Application No. 10-1996-0072736 is referred to as “Jeong;” in the Declaration of Richard W. Koralek, Ph.D. (see Applicant’s prior Response filed February 25, 2009), KR Application No. 10-1996-0072736 is referred to as “Kim.” Because the present Response will make reference to both the present Office Action and to Dr. Koralek’s Declaration, KR Application No. 10-1996-0072736 is hereinafter referred to as “Jeong/Kim.”

1. Independent Claims 1, 12 and 19

Morioka and Jeong/Kim fail to not teach the inventions of the independent claims 1, 12, and 19. Although the language of independent claims 12 and 19 are not identical to that of claim 1, the allowability of claims independent claims 12 and 19 will be apparent in view of the following discussion.

Claim 1 recites a method that includes “(i) fetching a single Digital Interface Frame (DIF) block from the DV data stream, the DIF block having a plurality of bytes including a first byte and a last byte; (ii) de-shuffling the first byte in the single DIF block to determine its index (n) in the PCM frame; (iii) for each subsequent bytes of data of the single DIF block, de-shuffling the subsequent byte until the last byte in the single DIF block is de-shuffled; (iii) [and] repeating (i) to (iii) for each subsequent DIF block of the multiple DIF blocks in the DV frame.” As previously stated in the Declaration of Richard W. Koralek, Ph.D., Morioka and Jeong/Kim do not teach, suggest, or disclose de-shuffling a single DIF block.

Applicant respectfully submits that Dr. Koralek’s Declaration by itself is sufficient to overcome the rejection of the claims. The Declaration shows Dr. Koralek qualifications and, importantly, that states “the cited references [Morioka, Jeong/Kim and AAPA], individually and collectively, fail to disclose teach or suggest audio data that is encoded into multiple DIF blocks of a DV frame may be decoded one DIF block at a time by deshuffling the bytes of a respective DIF block of the multiple DIF blocks for each respective one of the multiple DIF blocks of the DV frame” (paragraph 15). Consequently, Dr. Koralek’s Declaration overcomes the obviousness rejection.

Applicant respectfully submits that the present Office Action is incomplete and that the incompleteness of the Office Action denies Applicant with the opportunity to fully overcome the rejections. If the Examiner believes that Dr. Koralek’s Declaration did not overcome the rejections, it is incumbent on the Examiner to “specifically explain why the evidence is insufficient” to overcome the rejection. MPEP 716.01(a). Here, the Office Action failed to provide any explanation as to why Dr. Koralek’s Declaration does not overcome a rejection of obviousness based on the Morioka, Jeong/Kim and AAPA. Because Dr. Koralek’s Declaration was before the Examiner before the present Office Action was mailed and because

Dr. Koralek's Declaration specifically and individually addressed Morioka, Jeong/Kim and AAPA, the failure of the present Office to explain why Dr. Koralek's Declaration is insufficient to overcome a rejection of obviousness based on the Morioka, Jeong/Kim and AAPA renders the Office Action incomplete. Applicant respectfully submits that a subsequent Office Action, if any, should be non-final so that Applicant may fully respond to the Examiner's rejection.

2. Cited References Fail To Disclose Index (n) In PCM Frame

Claims 1 and 12 recite "de-shuffling the first byte in the single DIF block to determine its index (n) in the PCM frame," and claim 19 recites "de-shuffling the first byte of data in the single respective DIF block based on a calculation to determine an index (n) of the first byte in the PCM frame." It is important to note that the index is in the PCM frame and is not an index in the DIF frame.

Morioka and Jeong/Kim fail to determine/calculate the index, in the PCM frame, of the first byte of data in a single DIF block. While Morioka discusses converting audio data in a DV frame data to a PCM frame, Morioka does not disclose "de-shuffling the first byte in the single DIF block to determine its index (n) in the PCM frame." In fact, the Office Action admits that Morioka does not expressly disclose that index (n) is used in deshuffling.

To cure the deficiencies of Morioka, the Office Action cites Jeong/Kim for allegedly disclosing "index (n) (word number (WN) is used in deshuffling." Jeong/Kim discloses a counter (102) counts "the shuffled audio data (sDn) ... and output[s] the word number (WN)" Paragraph 36. The word number (WN) is not an index (in the PCM frame) of a byte of data in a DIF block. Instead, the word number (WN) represents a count (in units of a word) of samples of shuffled data. Consequently, Morioka and Jeong/Kim, individually and collectively, fail to disclose, teach or suggest "de-shuffling the first byte in the single DIF block to determine its index (n) in the PCM frame," as recited in claims 1 and 12, and individually and collectively, fail to disclose, teach or suggest "de-shuffling the first byte of data in the single respective DIF block based on a calculation to determine an index (n) of the first byte in the PCM frame," as recited in claim 19.

3. Common Rejection Of Independent Claims 1, 12 and 19 Improper

Claims 1, 12 and 19 stand rejected under a common rejection, which appears to be most closely related to the limitations of claim 1. However, the common rejection recites limitations not found in the independent claims. In particular, the rejection recites “(ii) de-shuffling the first byte in the single DIF block to convert the first byte in the PCM frame” (emphasis added), where the phrase “to convert the first byte in the PCM frame” is NOT recited in any one of claims 1, 12 or 19.

“Distilling an invention down to the “gist” or “thrust” of an invention disregards the requirement of analyzing the subject matter “as a whole.” *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), *cert. denied*, 469 U.S. 851 (1984).” Quotation from MPEP 2141.02 II. “All words in a claim must be considered in judging the patentability of that claim against the prior art.” *In re Wilson*, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970) (emphasis added).

Applicant respectfully submits that the rejection itself is evidence that the Examiner has failed to establish a *prima facie* case of obviousness. The rejection demonstrates that the Examiner is not examining the actual limitations recited in the claims. Instead, the Examiner is ignoring the actual limitations and has improperly distilled the claims into something that is not claimed. Therefore, Applicant respectfully request that the rejection be withdrawn.

4. Using The Index (In The PCM Frame) Of The Byte To Determine Indexes Of Subsequent Bytes

Claim 12 recites “determining indexes in the PCM frame for subsequent bytes of the single DIF block from the index determined for the first byte,” (emphasis added) and claim 19 recites “de-shuffling a respective subsequent byte of data in the single respective DIF block until the last byte in the single respective DIF block is de-shuffled based at least on the index (n) of the first byte in the single respective DIF block” (emphasis added).

Morioka and Jeong/Kim, individually and collectively, fail to disclose at least determining indexes of subsequent bytes from the index determined for the first byte, as recited

in claim 12; and Morioka and Jeong/Kim, individually and collectively, fail to disclose at least de-shuffling subsequent bytes based at least on the index (n) of the first byte in the single respective DIF, as recited in claim 19.

5. Jeong/Kim CANNOT Be Used As A Reference Without A Complete Translation

Jeong/Kim, KR Application No. 10-1996-0072736, is a reference published in a language other than English. The Examiner has provided a document that is purportedly a translation of Jeong/Kim and has cited to portions of the purported translations.

If the document is in a language other than English and the examiner seeks to rely on that document, a translation must be obtained so that the record is clear as to the precise facts the examiner is relying upon in support of the rejection. The record must also be clear as to whether the examiner is relying upon the abstract or the full text document to support a rejection. The rationale for this is several-fold. ... the full text document [may] include teachings away from the invention that will preclude an obviousness rejection under 35 U.S.C. 103, when the abstract alone appears to support the rejection. ... In limited circumstances, it may be appropriate for the examiner to make a rejection in a non-final Office action based in whole or in part on the abstract only without relying on the full text document. In such circumstances, the full text document and a translation (if not in English) may be supplied in the next Office action.

MPEP 706.02 II (emphasis added).

The purported translation of Jeong/Kim is apparently incomplete, and the undersigned believes that the following examples show that the purported translation is incomplete:

- 1) Paragraph 41, line12, “(110) adds 9 to the motive weighted value (SW) in which 3 or 5 is outputted from *** case motive decoder (140) and which is dishuffled.”;
- 2) Paragraph 52, line 3, “sample data (dDn) dishuffled as ***.” and;
- 3) Paragraph 71, line 1, “or 8 and which is outputted from the first counter (110) adds 9 to the motive weighted value (SW) in which 3 or 5 is outputted from *** ”.

Therefore, Applicant respectfully requests a full translation of the reference or that the reference be withdrawn.

In addition, the undersigned believes that the following examples show that the purported translation is of questionable quality.

1) Paragraph 11, lines 1 and 2, “Generally, in the digital video for camera audio processor, the audio encoding mode is supported as 48 KHz of two-channel, 4 tree of 32KHz mode of 44.1 KHz and 32KHz mode and 4 channel according to product.” (Emphasis added.);

2) Paragraph 13, lines 1 and 2, “That is, in order to be included in the segment in which the block of inputted digital audio data is identical order is rearranged and superior audio data is recorded in the magnetic recording tape. It says to be this the shuffling lice.” (Emphasis added.); and

3) Paragraph 26, lines 6 and 7, “number (SBN) (i) and byte location number (BPN) (j) in Fig. 1(at). In case the track number (TN) is ‘4’ or it is ‘9’, it becomes the shuffling pattern like showing according to the sync block number (SBN) (k) and byte location number (BPN) (j) in Fig. 1 (bad luck).” (Emphasis added.).

The undersigned respectfully submits that the quality of the purported translation is insufficient for establishing a *prima facie* case² and respectfully requests that the reference be withdrawn unless a complete and proper translation is provided by the Examiner.

6. Claims 7-9 And 18

Claims 7-9 and 18 stand rejected as being unpatentable over Morioka in view of Jeong/Kim and further in view of AAPA. AAPA fails to cure the aforementioned deficiencies of Morioka and Jeong/Kim. (See, Dr. Koralek’s Declaration.) Consequently, Applicant respectfully submits that claims 7-9 and 18 depend from allowable claims and that the rejection of claims 7-9 and 18 be withdrawn.

Claim 9 recites, inter alia, “A method as claimed in claim 1 wherein the de-shuffling of data in the single DIF block is performed according to the de-shuffling equation ...” (emphasis added), and claim 18 recites, inter alia, “The method of claim 12 wherein the de-shuffling is performed according to the de-shuffling equation ...” (emphasis added).

Applicant respectfully submits that a “de-shuffling equation”(f⁻¹(n)) is the inverse of a “shuffling equation” ”(f(n)). AAPA teaches away from de-shuffling according to a “de-

² See MPEP 2121: Prior Art; General Level of Operability Required to Make a *Prima Facie* Case.

shuffling equation” for at least the reason that “it is ... generally not possible to easily find a suitable reverse mapping f^{-1} .” (Specification, page 3, lines 24-25.)

7. Claims 4 And 15

Claims 4 and 15 stand rejected as being unpatentable over Morioka in view of Jeong/Kim and further in view of Le Dantec. Le Dantec is cited for disclosing setting counters to zero. Le Dantec fails to cure the aforementioned deficiencies of Morioka and Jeong/Kim. Consequently, Applicant respectfully submits that claims 4 and 15 depend from allowable claims and that the rejection of claims 7-9 and 18 be withdrawn.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,
SEED Intellectual Property Law Group PLLC

/Eric M. Ringer, Ph.D./
Eric M. Ringer, Ph.D.
Registration No. 47,028

EMR:wt

701 Fifth Avenue, Suite 5400
Seattle, Washington 98104
Phone: (206) 622-4900
Fax: (206) 682-6031

1388723_1.DOC